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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,960	01/17/2001	Magnus Hallenstal	27943-00409USP1	7006

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ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR C11
PLANO, TX 75024

EXAMINER	
NGUYEN, STEVEN H D	
ART UNIT	**PAPER NUMBER**
2665	

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/764,960	HALLENSTAL ET AL.	
	Examiner	Art Unit	
	Steven HD Nguyen	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25 and 27-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25 and 27-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/15/05 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited "the narrowband transport mechanism using at least one circuit emulator each" is vague and indefinite because it's unclear what "each" is constituted for. Please clarify.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2, 4-7, 17-21, 23, 25, 27-35, 37-38 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Obara (USP 5204857).

Regarding claim 1, Obara discloses an arrangement for combining narrowband and broadband transport mechanisms in a communications network, comprising a narrowband component including switching intelligence (Fig 1, Ref 101) and narrowband switching fabric (Fig 1, Ref 102); a broadband component in communication with the narrowband component (Fig 1, Ref 102 and 103 are coupled together), said broadband component including broadband switching fabric (Fig 1, Ref 103); wherein, when a first traffic call destined for a node that has only narrowband capabilities, is received in the narrowband component, the switching intelligence in the narrowband component utilizes the narrowband switching fabric to route the first traffic call to the narrowband destination node (Fig 2, Ref 21-23, Fig 3, 4,11 and 12 disclose a method and system for transmitting a traffic call to STM terminal via STM network), and wherein, when a second traffic call, destined for a node that has broadband capabilities, is received in the narrowband component, the switching intelligence in the narrowband component utilizes the broadband switching fabric in the broadband component to route the second traffic call to the broadband destination node (Fig 2, Ref 21-25, Fig 6, 13 and 15 disclose a method and system for transmitting a traffic call to ATM terminal via the networks).

Regarding claim 2, Obara discloses when a third traffic call, destined for a node that has broadband capabilities, is received in the broadband component, the broadband component utilizes the broadband switching fabric to route the third traffic call to the destination (Fig 2, Ref 21, 25 and 28 and Figs 7-10).

Regarding claim 4, Obara discloses wherein said broadband component on the switching intelligence of said narrowband component (Fig 1, Ref 103 must depend on Ref 101 of 102).

Regarding claim 5, Obara discloses said narrowband component includes a synchronous transfer mode (STM) switch (Fig 1, Ref 102), and said broadband component includes an asynchronous transfer mode (ATM) switch (Fig 1, Ref 103).

Regarding claim 6, Obara discloses comprising at least one circuit emulator (Fig 1, Ref 161 for emulating STM signal to ATM signal), said at least one circuit emulator adapted to enable said broadband component to emulate a circuit with respect to said narrowband component.

Regarding claim 7, Obara discloses said broadband component is adapted to emulate a circuit connection for the outgoing side of the second traffic call at said broadband component (Fig 1, Ref 161 is located at the broadband switch 103).

Regarding claim 17, Obara discloses a method for enabling a migration of a narrowband network to a broadband transport mechanism, comprising the steps of receiving, at a first control node having call control functionality and connection control functionality (Fig 2, Ref 20 and Fig 1, Ref 102 and 101 are a first control node), a first traffic call in a first format (Fig 1, Ref 20, the traffic call in TDM format); forwarding, from the first control node to a first destination node, the first traffic call in the first format (Fig 2, ref 23 for establishing a call to TDM node); receiving, at the first control node, a second traffic call in the first format (Fig 2, Ref 20); routing, by the first control node, the second traffic call to a second control node having connection control functionality (Fig 1, Ref 102 routing the traffic call to Ref 103), and

forwarding, from the second node to a second destination node (Fig 1, Ref 103 routing the traffic call to node 431 in ATM format), the second communication in a second format.

Regarding claim 18, Obara discloses a first format is TDM and a second format is ATM (Fig 1 discloses Ref 102 having format TDM and Ref 103 having ATM format).

Regarding claim 19, Obara discloses the first control node includes STM switch which directly coupled to the second control node having ATM switch (Fig 1, Ref 102 which is STM switch directly coupled to ATM switch includes Ref 161).

Regarding claim 20, Obara discloses receiving, at the second control node, a third traffic call in the first format (Fig 1, ref 161 and 103 for receiving a traffic call having TDM format; and forwarding, from the second control node, the third traffic call in the second format (Fig 1, Ref. 161 and 103 convert the TDM format into ATM format before forwarding traffic call).

Regarding claim 21, Obara discloses receiving, at the second control node, a third traffic call in the second format (Fig 1, ref 161 and 103 for receiving a traffic call having ATM format from Ref 431); forwarding, from the second control node, the third traffic call in the second format (Fig 1, Ref. 161 and 103 forward the traffic call in ATM format to node 43k).

Regarding claim 23, Obara discloses a method for enabling a migration of a narrowband network to a broadband transport mechanism, comprising the steps of receiving, at a narrowband control node having call control functionality and connection control functionality (Fig 1, Ref 101 and 102), a first traffic call in a first format (Fig 2, ref 20 and 22); forwarding, from the narrowband control node to a narrowband destination node (Fig 2, Ref 23 for forward a traffic call to Ref 131 in TDM format), the first traffic call in the first format; receiving, at a broadband control node having connection control functionality (Fig 1, Ref 103), a second traffic call in a

second format (Fig 2, ref 20, 24 for routing the traffic call based ATM format); routing, by the broadband control node, the second traffic call to the narrowband control node (Fig 2, ref 25); and forwarding, from the narrowband control node, the second communication in the first format (Fig 2, Ref 25 for forwarding the traffic call to traffic call to STM terminal 131 in TDM format).

Regarding claim 25, Obara discloses a method for enabling a gradual migration from a primarily narrowband network to a primarily broadband network, comprising the steps of receiving a traffic call having an identifier that corresponds to a destination terminal of the traffic call (Fig 2, Ref 20); analyzing the identifier that corresponds to the destination terminal of the traffic call (Fig 3, Ref 501); determining whether the identifier is associated with a network node having broadband capability (Fig 5, ref 601); and if the identifier is associated with a network node having broadband capability forwarding the communication over a broadband transport mechanism (Fig 5, ref 609) and if the identifier is not associated with a network node having broadband capability, forwarding the traffic call over narrowband transport mechanism (Fig 3, ref 502 and 506-507).

Regarding claim 27, Obara discloses receiving a traffic call having identifier that corresponds to a destination terminal of the traffic call comprises the step of receiving the traffic call on a broadband transport mechanism (Fig 5, Ref 607 for receiving traffic call on ATM network, Fig 2, ref 20).

Regarding claim 28, Obara discloses said step of receiving a traffic call having an identifier that corresponds to a destination terminal of the traffic call comprises the step of receiving the traffic call on a narrowband transport mechanism (Fig 1, ref 20 for receiving a traffic call on STM network).

Regarding claim 29, Obara discloses the identifier comprises a called directory number, and wherein said step of analyzing the identifier that corresponds to the destination terminal of the traffic call comprises the step of analyzing, via a narrowband group switch, the identifier (Fig 2, ref 23, 25, 27 and 28).

Regarding claim 30, Obara discloses said step of determining whether the identifier is associated with a network node having broadband capability comprises the step of comparing the identifier to a plurality of entries in a data structure (Fig 2, ref 23, 25, 27 and 28 inherently disclose this feature for identifying the terminal based on its identifier).

Regarding claim 31, Obara discloses the data structure includes bearer type information (STM network includes B channel, Fig 1).

Regarding claim 32, Obara discloses step of determining whether the identifier is associated with a network node having broadband capability comprises the step of determining proximity between the network node and the destination terminal (it is inherently discloses in fig 1 for using terminal identifier for locating the ATM switch that closest to the destination node).

Regarding claim 33, Obara discloses comprising the step of determining whether an identifier that corresponds to an origination terminal associated with a network node that has broadband capability (Fig 1 and Fig 2, Ref 24 and 25).

Regarding claims 34, Obara discloses an arrangement for combining narrowband and broadband transport mechanisms in a communications network, comprising means for providing narrowband switching (Fig 1, ref 110 and 102) having operative access to said means for providing switching intelligence (Fig 1, Ref 101) and connecting means for providing broadband switching (Fig 1, Ref 103); means for forwarding an incoming narrowband traffic call as an

outgoing narrowband traffic call utilizing said means for providing narrowband switching, upon determining that the destination for the narrowband traffic call is capable only of narrowband communications (Fig 2, Ref 23); and means for converting and forwarding (Fig 1, Ref 161) an incoming narrowband traffic call as an outgoing broadband traffic call utilizing said means for providing narrowband switching and said means for providing broadband switching, upon determining that the destination for the narrowband capable of broadband communications (Fig 2, Ref 23).

Regarding claim 35, Obara discloses comprising means for converting and forwarding an incoming broadband traffic call as an outgoing narrowband traffic call utilizing said means for providing broadband switching and said means for providing narrowband switching (Fig 1, Ref 161).

Regarding claim 37, Obara discloses a method for combining narrowband applications with broadband transport in a communications network, comprising terminating a time division multiplexed (TDM) inbound side of a first traffic call at a circuit switch (Fig 3 and Fig 1, ref 131 for terminating a TDM inbound traffic); If the destination for the first traffic call has only communications capability; switching the first traffic call by the circuit switch (Fig 1, Ref 131 and 102); and terminating a TDM outbound side of the first traffic can at the circuit switch (Fig 3, Fig 1, ref 131 for terminating a TDM outbound traffic); terminating a TDM inbound side of a second traffic call at the circuit switch (Figs 3-6 and Fig 1, ref 131 for terminating a TDM inbound traffic); switching the second traffic call by the circuit switch (Fig 1, Ref 102); and if the destination for the second traffic call has asynchronous transfer mode (ATM) communications capability; switching the second traffic call by a packet switch connected to the circuit switch

(Fig 1, Ref 103); and terminating an ATM outbound side of the second traffic call at the packet switch (Fig 1, ref 431).

Regarding claim 38, Obara discloses comprising the steps of terminating an ATM inbound side of a third traffic call at the packet switch (Fig 1, Ref 161); switching the third traffic call by the packet switch (Fig 1, Ref 103); switching the third traffic call by the circuit switch (Fig 1, Ref 102); and terminating a TDM outbound side of the third traffic by the circuit switch (Fig 1, Ref 131).

Regarding claim 40, Obara discloses the steps of terminating an ATM inbound side of a third traffic call at the packet switch (Fig 1, Ref 103); switching the third traffic call by the packet switch (Fig 1, Ref 103); and terminating an ATM outbound side of the third call at the packet switch (Fig 1, Ref 103).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 8-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obara (USP 5204857) in view of Borchering (USP 5867571).

Regarding claims 8-10 and 13-14, Borchering discloses a system for combining narrowband applications with broadband transport in a communications network, comprising a first logical node (Fig 1, Ref 130, 175 and 140) that includes a first circuit-based switch (Fig 1,

ref 130) and a first packet based switch (Fig 1, Ref 140), a second logical node (Fig 1, Ref 120, 155 and 150) connected to the first logical node (Fig 1, Ref 130, 175 and 140), said second logical node including a second circuit-based switch (Fig 1, Ref 120) and a second packet based switch (Fig 1, Ref 150). However, Borchring fails to fully disclose the first circuit-based switch has access to call control logic; wherein the first logical node is adapted to route traffic calls between the first circuit-based switch and the first packet-based switch, and between the first circuit-based switch and the second circuit based switch in the second logical node; wherein the second logical node is adapted to route between the second circuit-based switch and the second packet-based switch; and wherein the call control logic selectively propagates a given traffic call on a broadband transport mechanism or a narrowband transport mechanism between said first logical node and said second logical node. In the same field of endeavor, Obara discloses the first circuit-based switch has access to call control logic (Fig 1, Ref 102 and 101); wherein the first logical node is adapted to route traffic calls between the first circuit-based switch and the first packet-based switch (Figs 3-18 discloses the first node "Fig 1, Ref 101-103" is configured for routing the traffic call between Ref 102 and 103), and between the first circuit-based switch and the second circuit based switch in the second logical node (it is implicitly disclosed); wherein the second logical node is adapted to route between the second circuit-based switch and the second packet-based switch; and wherein the call control logic selectively propagates a given traffic call on a broadband transport mechanism or a narrowband transport mechanism between said first logical node and said second logical node (it is implicitly disclosed the second node) and the control logic selectively establishes a traffic connection across the narrowband transport mechanism between the first circuit-based switch and the second circuit-based switch, between

the first circuit-based switch and the second packet based switch, between the first packet-based switch and the second circuit based switch, and between the first packet based switch and the second packet-based switch (Figs 3-18); the first packet-based switch and the second packet-based switch establish connections across the narrowband transport mechanism using at least one circuit emulator each (Fig 1, Ref 1, 161); the incoming side of the traffic call is terminated by the first circuit-based switch (Fig 1, Ref 131 and 102)or the first packet based switch (Fig 1, Ref 431 and 103).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a control unit for controlling the routes of the traffic calls as disclosed by Obara's system and method into a system and method of Borchring. The motivation would have been to reduce the cost of the system.

Regarding claim 11, Borchring discloses a connection across the broadband transport mechanism established between the first packet-based switch and the second packet-based switch (Fig 1, Ref 140 and 150).

Regarding claim 12, Borchring discloses said first logical node is adapted to receive an incoming side of a traffic call and to forward an outgoing side of the traffic call from the first packet-based switch over the broadband transport mechanism to the second packet-based switch (Fig 1, Ref 140 and 150).

Regarding claim 16, Borchering discloses said first logical node is adapted to receive an incoming side of a traffic call at the first packet-based switch and to forward an outgoing side of the traffic call from the first circuit-based switch (Fig 1, Ref 220-228, the traffic call is received at the Ref 157 which is forwarded to the Ref 120 via 155).

8. Claims 3, 22, 24, 36 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obara (USP 5204857) in view of Holler (WO 9828884).

Regarding claims 3, 22, 36 and 39, Obara fails to disclose providing telecommunication service for narrowband and broadband network during the traffic call but disclosing the steps of terminating an ATM inbound side of a third traffic call at the packet switch (Fig 1, Ref 103); switching the third traffic call by the packet switch (Fig 1, Ref 103); switching the third traffic call by the circuit switch (Fig 1, Ref 102); at least one of the following steps terminating an ATM outbound side of the third traffic call at the packet switch (Fig 1, Ref 103); and terminating a TDM outbound side of the third traffic call at the circuit switch (Fig 1, Ref 102). In the same field of endeavor, Holler discloses that value added services may be invoked while connecting a call (page 8, middle of page).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a value added services as disclosed by Holler into the network of Obara. The motivation would have been to reduce the cost of the network.

Regarding claim 24, Obara fails to disclose the claimed invention. In the same field of endeavor, Holler discloses that the nodes may send instructions concerning routing information to each other (page 8 - page 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method for exchanging routing information between the nodes as disclosed by Holler into Obara's system. The motivation would have been to provide a dynamic network in order to expand it in the future.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Obara and Borchering as applied to claim 8 above, and further in view of Holler (WO 9828884).

Obara and Borchering fail to disclose providing telecommunication service for narrowband and broadband network during the traffic call. In the same field of endeavor, Holler discloses that value added services may be invoked while connecting a call (page 8, middle of page).

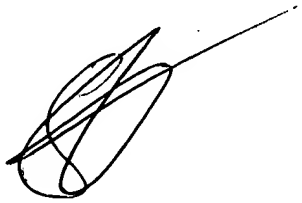
Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a value added services as disclosed by Holler into the network of Obara. The motivation would have been to reduce the cost of the network.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven HD Nguyen
Primary Examiner
Art Unit 2665
6/18/05